FEU 06 – The Writing and Distribution of Reports

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1. Scope

1.1. This standard operating procedure is designed to provide structure for reporting results and conclusions while adhering to Quality Assurance requirements.

1.2. The procedure also identifies various types of reports used in the Firearms Examination Unit (FEU) and the process for distributing reports.

2. Background

2.1. To establish the practices for documenting the examination of firearm evidence to conform to the requirements of the Department of Forensic Sciences (DFS) Forensic Science Laboratory (FSL) Quality Assurance Manual, the accreditation standards under ISO/IEC 17025:2017, and any supplemental requirements.

2.2. This procedure has been updated and aligned with recommendations made by the Scientific Advisory Board (SAB) of the Department of Forensic Sciences. The recommendations relevant to report writing relates to terminology used in reports for microscopic and macroscopic examinations.

3. Safety

3.1. Not Applicable

4. Materials Required

4.1. Not Applicable

5. Standards and Controls

5.1. Not Applicable

6. Calibration

6.1. Not Applicable

7. Procedure

General

7.1. Report Categories and Definitions

7.1.1. Firearms Analysis – The examination of firearms, simulated and improvised weapons. The microscopic and macroscopic examinations of ammunition and/or fired ammunition components.

7.1.2. Gunshot Residue – The visual and chemical examination of gunshot patterns/residues on objects, which allows the examiner to determine the proximity of the shooter to the target when the gun was fired.

7.1.3. Serial Number Restoration – The restoration of a serial number on the frame or receiver of a firearm.

7.1.4. NIBIN Report – The microscopic and macroscopic examinations of information (leads/possible hits) generated from the National Integrated Ballistic Information Network (NIBIN).

7.2. Report Sub-categories and Definitions

7.2.1. Re-examination – reports generated from reworked cases which were previously examined and reported.

7.2.2. Supplemental – reports that are issued subsequent to the first report that is issued. Normally generated when additional items are submitted to the laboratory after a report is distributed or when a request is submitted to compare cases.

7.2.3. Amended – reports that have to be corrected after the initial report has been distributed.

7.3. The Laboratory Information Management System (LIMS)

7.3.1. Reports are created in Laboratory Information Management System (LIMS). LIMS will automatically generate the report header, disposition of evidence, and footer.

7.3.2. Re-examination and supplemental reports will be completed through an additional service request in LIMS.

7.3.2.1. Right click in the Request tab and select “Add request”. Complete the required fields.

7.3.2.2. Select the Additional request data/data extension button and go to “FEU report type” and select Report of Examination – Supplemental or Report of Examination – Re-examination.

7.3.2.3. At this time, examined evidence items can be linked/related to the request.

7.3.3. Amendments are corrections to be made to a previously completed and distributed Report of Examination. These will be completed through a child request in LIMS.

7.3.3.1. Right click on the original request that requires the amendment and select “Add related request.”

7.3.3.2. Complete the required fields.

7.3.3.3. Select the Additional request data/data extension button and go to “FEU report type” and select Report of Examination –Amended.

7.3.3.4. At this time, ensure that the previously examined evidence is linked/related to this new service request.

7.3.3.5. Follow the Amended Reports according to LOM02 Practices for Case Documentation and Report Writing.

7.4. Report Wording and Format

7.4.1. Reports are typically divided in three main categories with the dates of analysis recorded:

7.4.1.1 Items submitted – this is populated by the Related Evidence field in LIMS for all DFS case numbers; all items and sub-items examined by the analyst must be indicated.

7.4.1.2 Examinations and Conclusions – this is populated by the Edit Findings field in LIMS; all items examined and listed must be addressed.

7.4.1.3 Disposition of Evidence – Evidence returned to the submitter.

7.4.1.4 Analysis Start Date - Analysis Start will be defined as the date on which the request is assigned in LIMS

7.4.1.5 Analysis Completion Date - Analysis completion will be defined as the date in which the final Tech/Admin review has been completed.

7.4.2. The test method must be described in the body of the report according to the Requested Analysis indicated.

7.4.2.1 Firearms Analysis/NIBIN Verification – will indicate test method as “microscopic examination”.

7.4.2.2 Serial Number Restoration – will indicate test method as “dremel polishing”, “magnetic restoration” and/or “chemical etching”, or other method to reveal the serial number.

7.4.2.3 Gunshot Residue – will indicate test method as “modified Griess test” and/or “sodium rhodizonate test” and/or “muzzle to garment distance determination”.

7.4.3. Evidence Description

7.4.3.1. Evidence listing will be recorded by laboratory number under the Items Submitted section and will be generated by evidence related to the LIMS request.

7.4.4. The following information must be included in a report documenting firearms:

7.4.4.1. Item number, make, caliber, firearm type, model and serial number. If the serial number has been obliterated, report accordingly.

7.4.4.2. Operating condition

7.4.4.3. Report the reason(s) for inoperable or malfunctioning firearms. Broken or missing components must be indicated in the report.

7.4.4.4. If the firearm is issued to an officer (e.g. police or park police officer), the agency, officer’s name, and the condition of all safety design mechanisms must be indicated.

7.4.4.5. If requested, trigger pull will be reported (single and/or double action) within a trigger pull range.

7.4.4.6. If requested, barrel length and overall length measurements will be reported. Indicate if the barrel was altered and report the measurement followed by the confidence of measurement from the FEU Uncertainty of Measurement Study.

7.4.5. The following information must be included in a report for cartridge cases or cartridges:

7.4.5.1. Item number, quantity, caliber and evidence description. Include brand for firearms analysis reports. In the absence of a brand report the item as unknown.

7.4.5.2. For any officer-related incident: If the cartridge cases or cartridges are the same as the Agency issued brand, it must be indicated in the report.

7.4.6. The following information must be included in a report for bullets or bullet fragments:

7.4.6.1 Item Number, quantity and caliber

7.4.6.2 Whenever a caliber is interchangeable, denote caliber when providing list of firearms.

7.4.6.3 Evidence description

7.4.6.4 Steel jacketed ammunition will be referred to as steel jacket regardless of coating or plating color.
7.4.6.5 Consistencies in manufacturer and/or shot size estimation
7.4.6.6 Direction and number of lands and grooves.
7.4.6.7 Conclusions and/or GRC list of firearms; including the GRC version number
7.4.6.8 If abbreviations are used, include full names in the notes.

7.4.7. The following information must be included in a report for magazines:

7.4.7.1 Item Number
7.4.7.2 Manufacturer/Brand
7.4.7.3 Caliber
7.4.7.4 Capacity- Magazine capacity will be determined using inert ammunition when possible and reported as “checked capacity”.
7.4.7.5 Indicate whether the magazine fits and functions in any of the submitted firearms.

7.4.8. The following information must be included in a report for clothing and referencing bullet holes in garments

7.4.8.1 Body parts should not be used to describe the location of holes.
7.4.8.2 Acceptable descriptors include: Front, back, upper, middle, lower, right, left and specific garment parts i.e. collar, cuff, elbow pad, sleeve, seam etc.
7.4.8.3 Locations of holes are based upon how the item is designed to be worn.
7.4.8.4 The term “suspect bullet hole” is not to be used; “defect” will be used.

7.4.9 The following clarification must be included in a NIBIN report for which additional related cartridge case items were evaluated to establish reproducibility:

7.4.9.1 Items associated with [Item #], submitted under [DFS#, Initials], previously examined and reported on [Report Date] and items associated with [Item #], submitted under [DFS#, Initials] examined and reported on [Report Date] are [caliber] cartridge cases, which were evaluated to complete this NIBIN verification report
7.4.9.2 If the cases have not been previously worked, the following statement will be used: Items associated with [Item #], submitted under [DFS #] and items associated with [Item #], submitted under [DFS #] are [caliber] cartridge cases, which were evaluated to complete this NIBIN verification report.
7.4.9.3 This clarification will be added to the Examinations and Conclusions section of the report.

7.5. Conclusions

7.5.1. Microscopic Examinations for Firearms Analysis or NIBIN Verifications (Comparisons) requests will be limited to:

7.5.1.1 Identification
7.5.1.2 Elimination
7.5.1.3 Inconclusive
7.5.1.4 Unsuitable
7.5.1.5 The report must describe the foundational basis for the conclusion regarding the specific evidence examined as described in Section 7.7 of FEU02 standards for interpretation and criteria for microscopic results.

7.5.2. Serial Number Restoration requests will be limited to:

7.5.2.1 Restored/revealed
7.5.2.2 Partially Restored/revealed
7.5.2.3 Unrestored

7.5.3. Gunshot Residue requests will be limited to:

7.5.3.1 Positive - Contact shot
7.5.3.2 Positive - Bullet wipe
7.5.3.3 Positive - Distance determination
7.5.3.4 Positive - No distance determination
7.5.3.5 Negative

7.6. Verifications

7.6.1. All conclusions reached through a microscopic comparison, and all conclusions of Serial Number Restoration and Gunshot Residue examinations will be independently verified by a qualified analyst in that discipline.

7.6.2. The verification will be reviewed through the technical and administrative process in the FEU.

7.6.3. Preliminary results will be reported after the verification has been completed. This should be documented in the communication log in LIMS.

7.7. Report Templates

7.7.1. Suggested report wording listed in the report templates may be changed by an examiner's discretion to more accurately reflect the supporting technical worksheets generated during the examination. Examples of wording for item description, examinations, results and conclusions can be found in the following report templates:

7.7.1.1 Firearms Analysis - Report Template
7.7.1.2 Gunshot Residue - Report Template
7.7.1.3 Serial Number Restoration - Report Template
7.7.1.4 NIBIN Report - Report Template

7.8. Report Distribution

7.8.1. Any FEU test performed that does not fall within the scope of accreditation will be clearly identified by a disclaimer in the report. No ANAB symbols will be used on these reports.

7.8.2. Any request that requires a report will be released when the technical and administrative milestones are set in LIMS.

7.8.3. Final Reports are sent to the Report Distributor using the below naming conventions for the file names. If Assignment Notifications (AN) are sent to the Report Distributor, the below naming conventions may also apply.

7.8.4. The format found in the USAO Shared Drive report formatting instructions will be used as a guide to upload reports.

Final Reports	Assignment Notifications
18123456 FEU	18123456 AN
18123456 FEU SUPP	18123456 AN SUPP
18123456 FEU SUPP2	18123456 AN SUPP2
18123456-18789101 FEU SUPP	18123456-18789101 AN SUPP
18123456 FEU SNR	18123456 AN SNR
18123456 FEU AMENDED	18123456 AN AMENDED
18123456 FEU RE-EXAM	18123456 AN RE-EXAM
18123456-18789101-18123456 FEU NIBIN HIT	18123456-18789101-18123456 AN NIBIN HIT

7.8.5. Report distribution can be divided into four categories

7.8.5.1 General Report distribution – all firearms analysis and gunshot residues and serial number restoration cases. Examiners and/or technicians submit the final Report and AN to the Report Distributor who will send the report to the Investigating Agency's email distribution list.

7.8.5.2 FEU Homicide – all homicide offenses (irrespective of service request). Examiners submit the final Report and AN to the Report Distributor all homicides are distributed to the Homicide Agencies email distribution list.

7.8.5.3 Internal Affairs Investigations (IAD) – All Police involved shootings. Examiners submit the final Report and AN to the Report Distributor. Examiners also have to notify the Report Distributor that it is a Police Involved shooting. The final report will be distributed to the IAD Agency distribution list.

7.8.5.4 NIBIN Reports – All microscopic results from a NIBIN verification. NIBIN reports are distributed by the examiners. Examiners submit the final Report and AN to the Report Distributor.

7.8.6 All reports are placed in the USAO portal and the AN is used to distribute the report in LIMS. The date the report is placed in the portal and the distribution date in LIMS must be the same.

7.8.7 The Distributor will send the examiner or technician an email confirmation that the report has been distributed.

7.8.8 The examiner or technician must check to ensure that the Report Distribution milestone is marked in LIMS.

7.8.9 Results of NIBIN correlation reviews are directly communicated to customers by the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) in either a general customer communication indicating negative or non-Lead results, or using a "NIBIN Lead Report". The FEU is not involved in this process.

8 Sampling

8.1 Not Applicable

9 Calculations

9.1 The method and calculations used to determine the estimation of uncertainty of measurement for measuring barrel and overall lengths can be found in FEU 13 Estimation of Uncertainty of Measurement.

10 Uncertainty of Measurement

10.1 If the customer requests a measurement of barrel or overall length of a firearm, the uncertainty of measurement will be reported with the measurement. Reporting guidance for uncertainty of measurement can be found in FEU 13 Estimation of Uncertainty of Measurement.

11 Limitations

11.1 Reports are written with the understanding that firearms Identification is an empirical science that relies on objective observations and a subjective interpretation of microscopic and macroscopic marks of value. Since it is not possible to collect and examine samples of all firearms, it is not possible to make an identification with absolute certainty. However all scientific research and testing to date and the continuous inability to disprove the principles of toolmark analysis have demonstrated that firearms produce unique, identifiable characteristics which allow examiners to reliably make identifications.

12 Documentation

12.1 Report Templates

13 Reference

13.1 ASCLD/LAB International, Estimating Uncertainty of Measurement Policy (July 2012).

13.2 ANAB, Guidance on reporting uncertainty of Measurement for calibration laboratories (March 2018).

13.3 FEU 13 Estimation of Uncertainty of Measurement.

13.4 DFS Departmental Operations Manuals (Current Versions).

13.5 FSL Quality Assurance Manual (Current Version).

13.6 FSL Laboratory Operations Manuals (Current Versions).

13.7 USAO Shared Drive Report Formatting Instructions